

KUHNE NEWS

KUHNE GROUP

February 2024

Enviral Lines – protect water or protect from water

Geomembranes, Studded Membranes or Roofing Membranes, KUHNE offers line concepts that protect the most valuable good on our planet – water – or protect from water impact. The line concepts are available heavily customized, for high throughput rates and all automatic as well as on the budget with a more standardized set-up.

Since a couple of years, KUHNE supplies a constant amount of 10 meter wide Geomembrane extrusion lines (33 feet) into regions where water storage and fish farming becomes more important to meet local demands. However, these membranes are also used for groundwater protection in landfills or opencast mining. The specifications and requirements for these membranes are different, depending on the final use and thus, we invented multiple surface finishes and in-depth manufacturing processes to ensure that specific needs are met', Rainer Bobowk, KUHNE's business unit manager, said. The line throughput covers a range from 1.000 Kg/h up to 3.500 Kg/h (2,200 – 7.700 lbs/h) and more. Thicknesses vary

between 500 µm and 3.0 mm. Today, these Geomembranes even require drainage designs with laminated textiles to the surface similar to what is state of the art on Studded Membranes.

Studded Membranes or so-called vacuum formed sheets are used especially for water drainage in order to protect the concrete foundation of buildings. Over the years, KUHNE has invented different line concepts that enable converters to run different types of studded membranes on the same extrusion line as concrete protection is just one purpose. 'We have seen these membranes also on roof tops to provide water storage for plants as well as inside buildings, embedded into flooring systems for noise reduction,' Thorsten Bung, the company's director of sales, said. Vacuum rolls are either water cooled for high throughput rates or air cooled so line capacities between 2.400 mm and 4.000 mm (94 – 157") width vary between 800 Kg/h and 1.400 Kg/h (1,700 – 3,000 lbs/h). But water is not just affecting through the soil surrounding a building, rain water is bringing an even higher risk for damages.

So-called Roofing Membranes are designed to provide a long term barrier that protects from rain water. What started with bitumen membranes is made of other materials today. Soft-PVC, TPO or EPDM are the most common raw materials for membranes that are installed on flat roofs today. Depending on the region, there are specific materials being used. And thus, also the line technologies change. Single-Screw- or Twin-Screw-Extrusion depending on the raw materials, the precision needed, the required simplicity of line operating and customer preferences – that is the first decision to be made. KUHNE offers both concepts and successfully gained more and more market share with multi-path – or single-path line concepts. Last named is a design where fabrics are coated from either from one- or both sides with one layer or multiple layers, leaving the line as ready to use membrane on so-called Jumbo-Rolls or Short-Rolls. From 1.600 mm up to 5.200 mm (40 – 204") width with up to 3.500 Kg/h (7,700 lbs/h) of plastification capacity, roofing membrane lines are heavily customized.



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